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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/534,474	03/24/2000	Debra L. Woods	WOO001	3349

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04/29/2002

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EXAMINER

LAO, LUN YI

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 04/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/534,474

Applicant(s)
Woods

Examiner
Lao, Lunyi

Art Unit
2673



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on Apr 11, 2002

2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 1-22 is/are pending in the application.

4a) Of the above, claim(s) 4, 11, and 14 is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 1, 2, 7-10, 12, 13, and 15-22 is/are rejected.

7) ☒ Claim(s) 3, 5, and 6 is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

19) ☐ Notice of Informal Patent Application (PTO-152)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

20) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 and 13-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The recitation of “at least three shift keys for establishing capital letters in combination with the letter keys” cited has not been disclosed in the specification. The specification only disclose shift keys(10, 12, 14, 15) performing different functions by cooperating with other keys(see page 7 and lines 10-17).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in

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section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7-10, 12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al(JP 08249097) in view of Chen(5,739,776).

As to claims 7-10, 12 and 21, Watanabe et al teach a keyboard comprising a plurality of keys arranged in an array on an upper side of a base(see figure 1). The keys includes letter keys, a tab key(TA), a backspace key(BS), a shift key(SH) and a function key(23, 24), wherein both tab(TA) and backspace keys(BS) are centrally located within the letter keys and above the home row(see figures 1, 3 and constitution).

Watanabe et al fail to disclose a tab key is located on the same row of the backspace key.

At to claims 8-9, 10-12 and 21, Chen teaches a keyboard comprising a tap key(15) same row to a backspace key(16)(see figures 1, 4 and column 2, lines 39-49). It would have been obvious to have modified Watanabe et al with the teaching of Chen, since the function of a key would not be effected by moving a backspace key down one row and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

As to claim 9, Watanabe et al teach a tab key(TA) is on the left of the backspace key(BS)(see figure 1).

As to claim 21, Watanabe et al teach a tab key(TA) is located directly above the home row and a backspace key(BS) located above a tab key(TA)(see figure 1) and Chen teaches a keyboard comprising a tap key(15) same row to a backspace key(16)(see figures 1, 4 and column 2, lines

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39-49). Therefore, the combination of Watanabe et al and Chen could have a tab key and backspace key located directly above the home row since the function of a backspace key would not be effected by moving a backspace key down one row and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ

70 (CCPA 1950).

5. Claim 13, 15, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (JP 08249097) in view of Harada et al(6,107,994) and Microsoft Press Computer Dictionary(Third Edition).

See the discussion of Watanabe et al on paragraph # 4 above. Watanabe et al teach a keyboard having two shift keys(SH) and two ALT keys adjacent one another are operated by thumbs of a user(see figure 1 and constitution).

Watanabe et al fail to disclose three shift keys arranged in two rows.

Harada et al teach shift keys and alternate keys arranged in two rows(see figure 3) and shift keys for entering capital letters in cooperating with the letter keys(see column 7, lines 12-15). It would have been obvious to rearranged shift keys and alternate keys adjacent to each other in one row into two rows, since the function of a key would not be effected, those keys still could be operated by thumbs of a user and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

It would have been obvious to replace ALT keys by shift keys since they both having same function(they both used in combination of another key to produce some special feature or

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function)(see Microsoft Press Computer Dictionary(Third Edition) pages 21, 22 and 433).

6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al (JP 08249097) in view of Harada et al(6,107,994), Microsoft Press Computer Dictionary(Third Edition) and Maynard et al(5,557,299).

Watanabe et al as modified fail to disclose shift keys are color coded.

Maynard et al teach a keyboard having a color code(Green, Red, Blue, Yellow)(see figure 5; column 5, lines 57-68 and column 6, lines 1-36). It would have been obvious to have modified Watanabe et al as modified with the teaching of Maynard et al, so a user can first easily locate the type of key by its color(see column 5, lines 65-68 and column 6, line 1).

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable Watanabe et al (JP 08249097) in view of Harada et al(6,107,994) and Microsoft Press Computer Dictionary(Third Edition) and Montgomery(4,211,497).

See the discussion of Watanabe et al (JP 08249097), Harada et al(6,107,994) and Microsoft Press Computer Dictionary(Third Edition) on paragraph #5 above.

Watanabe et al fail to disclose at least three multi-letter words would be come out when read one of rows of selected letter keys from left to right.

Montgomery teaches a keyboard having two multi-letter words(I T H E R) came out when read one of rows of selected letter keys from left to right(see figure 12). It would have been obvious to have modified Watanabe et al as modified with the teaching of Montgomery, so as to increase the speed of typing common words(see Montgomery's column 2, lines 60-61) and since the function of a key would not be effected by changing location of the key and a change in

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location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

It would have been obvious to put three sequential common words in one row since there would be more convenience for a user to locate those common words; e.g. I T H E R O F: so as to increase typing speed and since the function of a key would not be effected by changing location of the key and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

8. Claims 2 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klauber(5,620,267) in view of Montgomery(4,211,497).

As to claims 2 and 22, Klauber teaches a keyboard comprising a plurality of keys arranged in an array on an upper side of a base(see figure 1). The keys includes letter keys, a tab key(TAB), a backspace key, a shift key(shift) and a function key(F1-F12)(see figures 6-7).

Klauber fails to disclose at least three multi-letter words would be come out when read one of rows of selected letter keys from left to right.

Montgomery teaches a keyboard having two multi-letter words(P I T H E R B) came out when read one of rows of selected letter keys from left to right(see figure 12). It would have been obvious to have modified Klauber as modified with the teaching of Montgomery, so as to increase the speed of typing common words(see Montgomery's column 2, lines 60-61) and since the function of a key would not be effected by changing location of the key and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

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It would have been obvious to put three sequential common words in one row since there would be more convenience for a user to locate those common words; e.g. ITHEROF; so as to increase typing speed and since the function of a key would not be effected by changing location of the key and a change in location is generally recognized as being within the level of ordinary skill in the art. In re Japikse, 86 USPQ 70 (CCPA 1950).

As to claim 22, Montgomery teaches one of the multi-letter words is a four letter word(HERB) and another of the multi-letter words is three letter word(PIT)(see figure 18).

Allowable Subject Matter

9. Claims 3, 5-6 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

10. Applicant's arguments filed on 4/11/02 have been fully considered but they are not persuasive.

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Applicant argues that moving a backspace key down one row would be require arrangement of many of keys on page 6. That is not true since it only need to switch a position of a backspace key with an enter key or simply just have one mor backspace key next to a tap key since an enter keys occupies two key space(see figure 1).

Applicant argues that the combination of Watanabe et al and Chen do not teach the tap and backspace keys located in a third row down from the top of the base on page 7. The examiner disagrees with that since the Chen has disclosed a row of keys; e.g. function keys; can located on the top of the keyboard(see figure 1) and Watanabe et al could added one of row of keys on the top of the keyboard and then the tap and backspace keys would located in a third row down from the top of the base(see figure 1).

Applicant argues that a shift key different from an alt key on page 8. Even though the names of a shift key and an alt key are different, they actually the same since they both perform some special function or feature with another key(see pages 21, 22 and 433 of Microsoft Press Computer Dictionary).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

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or faxed to:

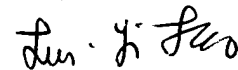
(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

April 24, 2002

Lun-yi Lao



Lun-Yi Lao
Primary Examiner